

6CT3

Half-Wave Rectifier

9-Pin Miniature Type

$$i_{bm} = 1200 \text{ max. mA}$$

$$P_b = 4.75 \text{ max. W}$$

For Black-and-White and Small-Screen Color-TV
Damper Diode Applications

ELECTRICAL CHARACTERISTICS - Bogey Values

| | | | |
|-----------------------------------|-------|-----|---|
| Heater Voltage, ac or dc. | E_h | 6.3 | V |
| Heater Current | I_h | 1.2 | A |

Direct Interelectrode

Capacitances:^a

Plate to cathode

| | | | |
|----------------------|--------------|------|----|
| and heater | $c_{p(k+h)}$ | 12.0 | pF |
|----------------------|--------------|------|----|

Cathode to plate

| | | | |
|----------------------|--------------|-----|----|
| and heater | $c_{k(p+h)}$ | 9.5 | pF |
|----------------------|--------------|-----|----|

| | | | |
|-----------------------------|----------|-----|----|
| Heater to cathode | c_{hk} | 2.8 | pF |
|-----------------------------|----------|-----|----|

Instantaneous Tube Voltage

Drop for instantaneous

| | | |
|---|----|---|
| plate current (i_b) = 350 mA. e_b | 16 | V |
|---|----|---|

MECHANICAL CHARACTERISTICS

Maximum Overall Length (l_m) 3.125 in (79.37 mm)

Maximum Seated Length (l_{sm}) 2.875 in (73.02 mm)

Maximum Diameter (d_m) 0.875 in (22.22 mm)

Envelope. JEDEC Designation 6-1/2

Base Small-Button Noval 9-Pin JEDEC Designation E9-1

Terminal Connections

(See *TERMINAL DIAGRAM*) JEDEC Designation 9RX

Type of Cathode Coated Unipotential

Operating Position Any

MAXIMUM RATINGS - Design-Maximum Values^b

For operation as a Damper Tube in TV Receivers utilizing a
525-line, 30-frame system^c

| | | |
|---|-------------------|---|
| Peak Inverse Plate Voltage. . $-e_{bm}$ | 5000 ^d | V |
|---|-------------------|---|

Heater-Cathode Voltage:

| | | |
|--------------------------|---|--------------------------------------|
| Peak e_{hkm} | $\begin{cases} +300 \\ -5000 \end{cases}$ | $\begin{matrix} V \\ V \end{matrix}$ |
|--------------------------|---|--------------------------------------|

RCA Electronic
Components

DATA
5-68

6CT3

| | | | |
|--------------------------------|--------------|--|--------------------------------------|
| Average ^e | $E_{hk(av)}$ | $\begin{cases} +100 \\ -900 \end{cases}$ | $\begin{matrix} V \\ V \end{matrix}$ |
| Heater Voltage, ac or dc . . . | E_h | 5.7 to 6.9 | V |
| Plate Current: | | | |
| Peak | i_{bm} | 1200 | mA |
| Average ^e | $I_{b(av)}$ | 250 | mA |
| Plate Dissipation | P_b | 4.75 | W |
| Envelope Temperature (at | | | |
| hottest point on envelope | | | |
| surface) | T_E | 220 | °C |

^a Measured without external shield in accordance with the current issue of EIA Standard RS-191.

^b As defined in the current issue of EIA Standard RS-239.

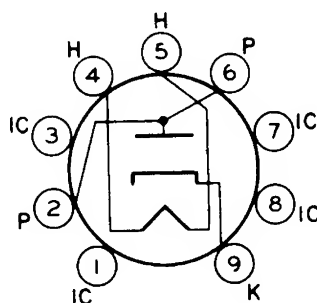
^c As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

^d This rating is applicable when the duration of the voltage pulse does not exceed 15% of one horizontal scanning cycle. In a 525-line, 30-frame system, 15% of one horizontal scanning cycle is 10 μ s.

^e Measured with a dc meter.

TERMINAL DIAGRAM (Bottom View)

- Pin 1 - Do Not Use
- Pin 2 - Plate
- Pin 3 - Do Not Use
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Plate
- Pin 7 - Do Not Use
- Pin 8 - Do Not Use
- Pin 9 - Cathode



JEDEC 9RX

OPERATING CONSIDERATIONS

Socket terminals 1, 3, 7, and 8 should not be used as tie points for external-circuit components. It is recommended that these socket tabs be removed to reduce the possibility of arc-over and to minimize leakage.